

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

Mun-Pyo HONG, *et al.*

Serial No.: To Be Assigned
(Divisional Application of
Serial No. 09/751,840)

Confirmation No.: To Be Assigned

Docket No.: 6192.0158.D1

Group Art Unit: To Be Assigned

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Examiner: To Be Assigned

For: CONTACT STRUCTURE OF A WIRING AND A THIN FILM
TRANSISTOR ARRAY PANEL INCLUDING THE SAME (AS
AMENDED)

Commissioner for Patents
Alexandria, VA 22313-1450

Preliminary Amendment

ATTN: BOX PATENT APPLICATION
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Please amend the above-identified patent application as follows.

It is believed that no extension of time is required. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our deposit account No. 23-1951.

Amendments

In the Title:

Please amend the title of invention to read – **CONTACT STRUCTURE OF A WIRING AND A THIN FILM TRANSISTOR ARRAY PANEL INCLUDING THE SAME** –.

In the Specification:

At the beginning of the specification, please insert the following:

– CROSS REFERENCE

This is a divisional application of co-pending U.S. Application Serial No. 09/751,840 filed on January 2, 2001. –

In the Claims:

Please cancel claims 1-9 and 16-44 without any disclaimer or a prejudice. List of claims are as follows:

1-9. (Currently Cancelled)

10. (Currently Amended) A contact structure of a wire, comprising:
a wire of a conductive material on a substrate;
an inter-layer reaction layer formed on the wire and including at least silicon or transition metal; and

a conductive layer electrically connected to the wire via the inter-reaction layer.

11. (Original) The contact structure of claim 10, wherein the wire is made of a conductive material including aluminum-based material.

12. (Original) The contact structure of claim 11, wherein the inter-layer reaction layer includes at least Al_xSi_x .

13. (Original) The contact structure of claim 10, wherein the inter-layer reaction layer is inter-metallic compound layer.

14. (Original) The contact structure of claim 10, wherein the conductive layer is made of a transparent conductive material of indium zinc oxide.

15. (Original) The contact structure of claim 10, further comprising an insulating layer having a contact hole exposing the inter-layer reaction layer between the wire and the conductive layer.

16-44. (Currently Cancelled)

45. (Currently Amended) A thin film transistor array panel, comprising:
a gate wire made of a first conductive material on an insulating substrate;
a gate insulating layer covering the gate wire;

a semiconductor layer formed on the gate insulating layer;
a data wire made of a second conductive material on the gate insulating layer and the semiconductor layer;
a passivation layer covering the data wire;
an inter-layer reaction layer formed on the gate wire and the data wire; and
a transparent conductive layer pattern electrically connected to the gate wire or the data wire through a first contact hole of the gate insulating layer or the passivation layer via the first contact hole.

46. (Original) The thin film transistor array panel of claim 45, wherein the first and the second conductive material include a metal of aluminum-based material.

47. (Original) The thin film transistor array panel of claim 45, wherein the insulating layer and the passivation layer are made of silicon-nitride.

48. (Original) The thin film transistor array panel of claim 45, wherein the transparent conductive layer pattern is made of indium zinc oxide.

49. (Original) The thin film transistor array panel of claim 45, wherein the gate wire includes a gate line, a gate electrode connected to the gate line, and a gate pad which is connected to the gate line and receives a signal from an external circuit, and the data wire includes a data